

Claims

1. A method of transmitting a plurality of forward error corrected blocks within a burst, wherein the forward error-correction coding rate varies among the forward error corrected blocks, the burst includes a header indicating the coding rate of one of the blocks and said one of the blocks contains data indicating the coding rate of a subsequent one or more of the blocks.

5 2. A method according to claim 1, wherein said one of the blocks is a first one of the blocks to be transmitted.

10 3. A method according to claim 1 or claim 2, wherein said header comprises a variable unique word.

4. A method according to any preceding claim, wherein the blocks contain packets addressed to a plurality of receivers.

15 5. A method according to claim 4, wherein at least some of the packets are split between different ones of the blocks.

6. A method according to any preceding claim, wherein the coding rate indicated in the header is less than or equal to the coding rate of the subsequent one or more blocks.

20 7. A method of transmitting a data burst comprising a unique word and a plurality of blocks, wherein the unique word is variable and indicates the transmission scheme of at least one of said blocks, and said at least one block indicates the transmission scheme of at least one other of said blocks.

25 8. A method of wireless transmission from a transmitter to a plurality of receivers, wherein the transmission includes a plurality of packets addressed respectively to the receivers, the method including determining the least capable of the receivers and selecting one or more parameters of the transmission so as to match the capabilities of the least capable of the receivers.

9. A method according to claim 8, wherein the transmission includes a forward error-corrected block having a coding rate selected to match the capabilities of the least capable of the receivers.

30 10. A method of wireless transmission from a transmitter to a plurality of receivers, the method comprising transmitting a burst containing a plurality of forward error-

corrected blocks, at least one of which includes part or all of a plurality of packets addressed to different ones of said plurality of receivers and has a coding rate selected so as to match the capabilities of the least capable of the receivers to which the packets are addressed.

5 11. A method according to claim 10, wherein at least some of the packets are split between different forward error-corrected blocks.

10 12. A method of assigning a plurality of packets addressed to a respective plurality of wireless receivers to a plurality of bearers, the method comprising identifying the receiving capabilities of the wireless receivers and assigning packets addressed to ones of the receivers having similar receiving capabilities onto the same one of said bearers.

15 13. A method of assigning a plurality of receivers to a plurality of bearers for reception of packets addressed to the receivers, the method comprising: in a first, low traffic condition, assigning packets to a smaller number of bearers containing packets addressed to receivers of differing receiving capabilities, and in a second, high traffic condition, assigning packets to a greater number of bearers and assigning packets addressed to those of the receivers having similar receiving capabilities onto the same one of said greater number of bearers.

20 14. A method of transmission over a satellite link between a satellite station and a mobile satellite terminal able to transmit at a selected one of a plurality of different forward error correction (FEC) coding rates wherein a change between successive ones of said FEC coding rates provides a substantially constant change in gain over the satellite link, the method comprising, at the terminal: transmitting a plurality of bursts to the satellite station, wherein the FEC coding rates of the bursts vary between at least some of said bursts in response to a signal from the satellite station.

25 15. A method according to claim 14, wherein said signal is dependent on a reception quality of one or more of said bursts previously received from the mobile satellite terminal by the satellite station.

30 16. A method according to claim 14 or claim 15, wherein the mobile satellite terminal selects the FEC coding rates of at least one of said bursts dependent on a reception quality of one or more transmissions transmitted from the satellite station to the mobile

satellite terminal if said signal is not received from the satellite station within a timeout period.

17. A method of controlling a transmission to a satellite station from a mobile satellite terminal, able to transmit at a selected one of a plurality of different forward error correction (FEC) coding rates wherein a change between successive ones of said FEC coding rates provides a substantially constant change in gain over the satellite link, the method comprising, at the satellite station: receiving a first burst from the mobile satellite terminal and determining a reception quality of the first burst, and if the reception quality does not meet a predetermined criterion, transmitting a command to the mobile satellite terminal to select a different one of the FEC rates for transmission of a second, subsequent burst such that the second transmission is received with a reception quality which meets the predetermined criterion.

18. A method according to any of claims 14 to 17, wherein said substantially constant change in gain is approximately 1 dB.

19. A method according to any of claims 14 to 18, wherein the satellite station is a satellite ground station for communicating with the satellite terminal via a satellite.

20. A method according to any one of claims 14 to 18, wherein said satellite station is a satellite.

21. A signal generated by a method according to any one of claims 1 to 20.

22. Apparatus arranged to perform the method of any one of claims 1 to 20.